Christopher Reinhard

List of Publications by Year
in descending order

77 papers	8,648 citations	81743 39 h-index	76769 74 g-index
83 all docs	83 docs citations	83 times ranked	5053 citing authors

#	Article	IF	Citations
1	The rise of oxygen in Earthâ€™s early ocean and atmosphere. Nature, 2014, 506, 307-315.	13.7	1,966
2	Low Mid-Proterozoic atmospheric oxygen levels and the delayed rise of animals. Science, 2014, 346, 635-638.	6.0	594
3	Evidence for oxygenic photosynthesis half a billion years before the Great Oxidation Event. Nature Geoscience, 2014, 7, 283-286.	5.4	444
4	Proterozoic ocean redox and biogeochemical stasis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5357-5362.	3.3	418
5	Evolution of the global phosphorus cycle. Nature, 2017, 541, 386-389.	13.7	397
6	Widespread iron-rich conditions in the mid-Proterozoic ocean. Nature, 2011, 477, 448-451.	13.7	385
7	The evolution of the marine phosphate reservoir. Nature, 2010, 467, 1088-1090.	13.7	361
8	Exoplanet Biosignatures: A Review of Remotely Detectable Signs of Life. Astrobiology, 2018, 18, 663-708.	1.5	328
9	A Late Archean Sulfidic Sea Stimulated by Early Oxidative Weathering of the Continents. Science, 2009, 326, 713-716.	6.0	241
10	Pervasive oxygenation along late Archaean ocean margins. Nature Geoscience, 2010, 3, 647-652.	5.4	233
11	A shale-hosted Cr isotope record of low atmospheric oxygen during the Proterozoic. Geology, 2016, 44, 555-558.	2.0	228
12	Earthâ€™s oxygen cycle and the evolution of animal life. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8933-8938.	3.3	205
13	Exoplanet Biosignatures: Understanding Oxygen as a Biosignature in the Context of Its Environment. Astrobiology, 2018, 18, 630-662.	1.5	194
14	Trace elements at the intersection of marine biological and geochemical evolution. Earth-Science Reviews, 2016, 163, 323-348.	4.0	135
15	Coupled molybdenum, iron and uranium stable isotopes as oceanic paleoredox proxies during the Paleoproterozoic Shunga Event. Chemical Geology, 2013, 362, 193-210.	1.4	129
16	The isotopic composition of authigenic chromium in anoxic marine sediments: A case study from the Cariaco Basin. Earth and Planetary Science Letters, 2014, 407, 9-18.	1.8	99
17	False Negatives for Remote Life Detection on Ocean-Bearing Planets: Lessons from the Early Earth. Astrobiology, 2017, 17, 287-297.	1.5	97
18	Long-term sedimentary recycling of rare sulphur isotope anomalies. Nature, 2013, 497, 100-103.	13.7	96

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19	Oxygenation, Life, and the Planetary System during Earth's Middle History: An Overview. Astrobiology, 2021, 21, 906-923.	1.5	85
20	The chromium isotope composition of reducing and oxic marine sediments. Geochimica Et Cosmochimica Acta, 2016, 184, 1-19.	1.6	83
21	Constraints on Paleoproterozoic atmospheric oxygen levels. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8104-8109.	3.3	83
22	On the coâ€evolution of surface oxygen levels and animals. Geobiology, 2020, 18, 260-281.	1.1	82
23	Chromium isotope fractionation during subduction-related metamorphism, black shale weathering, and hydrothermal alteration. Chemical Geology, 2016, 423, 19-33.	1.4	77
24	Redox-independent chromium isotope fractionation induced by ligand-promoted dissolution. Nature Communications, 2017, 8, 1590.	5.8	75
25	Marine redox conditions in the middle Proterozoic ocean and isotopic constraints on authigenic carbonate formation: Insights from the Chuanlinggou Formation, Yanshan Basin, North China. Geochimica Et Cosmochimica Acta, 2015, 150, 90-105.	1.6	71
26	A Cenozoic seawater redox record derived from 238U/235U in ferromanganese crusts. Numerische Mathematik, 2016, 316, 64-83.	0.7	70
27	Limited role for methane in the mid-Proterozoic greenhouse. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11447-11452.	3.3	69
28	Chromium isotope systematics in the Connecticut River. Chemical Geology, 2017, 456, 98-111.	1.4	69
29	A model for the oceanic mass balance of rhenium and implications for the extent of Proterozoic ocean anoxia. Geochimica Et Cosmochimica Acta, 2018, 227, 75-95.	1.6	66
30	Tracking the rise of eukaryotes to ecological dominance with zinc isotopes. Geobiology, 2018, 16, 341-352.	1.1	65
31	A case for low atmospheric oxygen levels during Earth's middle history. Emerging Topics in Life Sciences, 2018, 2, 149-159.	1.1	64
32	Transient episodes of mild environmental oxygenation and oxidative continental weathering during the late Archean. Science Advances, 2015, 1, e1500777.	4.7	61
33	Oxidative sulfide dissolution on the early Earth. Chemical Geology, 2013, 362, 44-55.	1.4	53
34	A sluggish midâ€Proterozoic biosphere and its effect on Earth's redox balance. Geobiology, 2019, 17, 3-11.	1.1	52
35	Anoxygenic photosynthesis and the delayed oxygenation of Earthâ€™s atmosphere. Nature Communications, 2019, 10, 3026.	5.8	47
36	Palaeoproterozoic oxygenated oceans following the Lomagundiâ€"Jatuli Event. Nature Geoscience, 2020, 13, 302-306.	5.4	47

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37	Effects of primitive photosynthesis on Earthâ€™s early climate system. Nature Geoscience, 2018, 11, 55-59.	5.4	45
38	Sedimentary chromium isotopic compositions across the Cretaceous OAE2 at Demerara Rise Site 1258. Chemical Geology, 2016, 429, 85-92.	1.4	44
39	No evidence for high atmospheric oxygen levels 1,400 million years ago. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2550-1.	3.3	44
40	Photoferrotrophy, deposition of banded iron formations, and methane production in Archean oceans. Science Advances, 2019, 5, eaav2869.	4.7	43
41	Atmospheric Seasonality as an Exoplanet Biosignature. Astrophysical Journal Letters, 2018, 858, L14.	3.0	40
42	Nitrous oxide from chemodenitrification: A possible missing link in the Proterozoic greenhouse and the evolution of aerobic respiration. Geobiology, 2018, 16, 597-609.	1.1	39
43	The impact of marine nutrient abundance on early eukaryotic ecosystems. Geobiology, 2020, 18, 139-151.	1.1	39
44	The role of environmental factors in the long-term evolution of the marine biological pump. Nature Geoscience, 2020, 13, 812-816.	5.4	38
45	Evolution of the structure and impact of Earthâ€™s biosphere. Nature Reviews Earth & Environment, 2021, 2, 123-139.	12.2	37
46	A Limited Habitable Zone for Complex Life. Astrophysical Journal, 2019, 878, 19.	1.6	30
47	Oxygen suppression of macroscopic multicellularity. Nature Communications, 2021, 12, 2838.	5.8	30
48	Experimental determination of pyrite and molybdenite oxidation kinetics at nanomolar oxygen concentrations. Geochimica Et Cosmochimica Acta, 2019, 249, 160-172.	1.6	28
49	A paleosol record of the evolution of Cr redox cycling and evidence for an increase in atmospheric oxygen during the Neoproterozoic. Geobiology, 2019, 17, 579-593.	1.1	27
50	Making Sense of Massive Carbon Isotope Excursions With an Inverse Carbon Cycle Model. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2485-2496.	1.3	26
51	Chromium isotope systematics and the diagenesis of marine carbonates. Earth and Planetary Science Letters, 2021, 562, 116824.	1.8	24
52	The History of Ocean Oxygenation. Annual Review of Marine Science, 2022, 14, 331-353.	5.1	22
53	A largely invariant marine dissolved organic carbon reservoir across Earth's history. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	22
54	Reconciling evidence of oxidative weathering and atmospheric anoxia on Archean Earth. Science Advances, 2021, 7, eabj0108.	4.7	21

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55	Late Proterozoic Transitions in Climate, Oxygen, and Tectonics, and the Rise of Complex Life. The Paleontological Society Papers, 2015, 21, 47-82.	0.8	20
56	Biogeochemical Controls on the Redox Evolution of Earthâ€™s Oceans and Atmosphere. Elements, 2020, 16, 191-196.	0.5	19
57	The future lifespan of Earthâ€™s oxygenated atmosphere. Nature Geoscience, 2021, 14, 138-142.	5.4	19
58	Behavior of the Mo, Tl, and U isotope systems during differentiation in the Kilauea Iki lava lake. Chemical Geology, 2021, 574, 120239.	1.4	19
59	Large Mass-Independent Oxygen Isotope Fractionations in Mid-Proterozoic Sediments: Evidence for a Low-Oxygen Atmosphere?. Astrobiology, 2020, 20, 628-636.	1.5	18
60	Bistability in the redox chemistry of sediments and oceans. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33043-33050.	3.3	18
61	Nutrient Supply to Planetary Biospheres From Anoxic Weathering of Mafic Oceanic Crust. Geophysical Research Letters, 2021, 48, e2021GL094442.	1.5	16
62	An expanded shale Î´98Mo record permits recurrent shallow marine oxygenation during the Neoarchean. Chemical Geology, 2020, 532, 119391.	1.4	15
63	Strong evidence for a weakly oxygenated oceanâ€“atmosphere system during the Proterozoic. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	15
64	Cyanobacterial Diazotrophy and Earthâ€™s Delayed Oxygenation. Frontiers in Microbiology, 2016, 7, 1526.	1.5	14
65	Iron and sulfur cycling in the cGENIE.muffin Earth system model (v0.9.21). Geoscientific Model Development, 2021, 14, 2713-2745.	1.3	12
66	The impact of primary processes and secondary alteration on the stable isotope composition of ocean island basalts. Chemical Geology, 2021, 581, 120416.	1.4	12
67	Oceanic and atmospheric methane cycling in the cGENIE Earth system model â€“ release v0.9.14. Geoscientific Model Development, 2020, 13, 5687-5706.	1.3	12
68	Triple oxygen isotope constraints on atmospheric O ₂ and biological productivity during the mid-Proterozoic. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	9
69	Earth: Atmospheric Evolution of a Habitable Planet. , 2018, , 2817-2853.		6
70	New constraints on mid-Proterozoic ocean redox from stable thallium isotope systematics of black shales. Geochimica Et Cosmochimica Acta, 2021, 315, 185-206.	1.6	6
71	Earth: Atmospheric Evolution of a Habitable Planet. , 2018, , 1-37.		4
72	Novel insights into the taxonomic diversity and molecular mechanisms of bacterial Mn(<scp>III</scp>) reduction. Environmental Microbiology Reports, 2020, 12, 583-593.	1.0	4

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73	Atmospheric Oxygen Abundance, Marine Nutrient Availability, and Organic Carbon Fluxes to the Seafloor. Global Biogeochemical Cycles, 2022, 36, .	1.9	4
74	Mechanistic Links Between the Sedimentary Redox Cycle and Marine Acidâ€Base Chemistry. Geochemistry, Geophysics, Geosystems, 2019, 20, 5968-5978.	1.0	3
75	Microbial helpers allow cyanobacteria to thrive in ferruginous waters. Geobiology, 2021, 19, 510-520.	1.1	3
76	Chromium Isotopes. Encyclopedia of Earth Sciences Series, 2018, , 1-6.	0.1	0
77	Chromium Isotopes. Encyclopedia of Earth Sciences Series, 2018, , 256-262.	0.1	0